

# Transmission Routes

Submitted by Callie Parr and used in cooperation with the University of Illinois at Urbana-Champaign.

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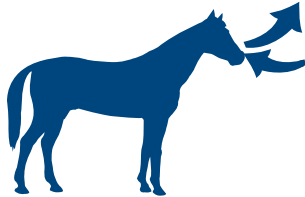
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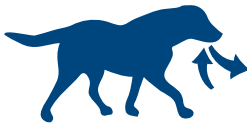
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## TRANSMISSION ROUTE DEFINITIONS

Disease causing agents can be spread from animal-to-animal or animal-to-human and vice versa, through a variety of transmission routes.



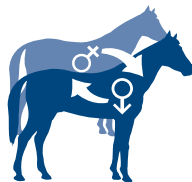
**Aerosol**— Droplets are passed through the air from one animal to another.



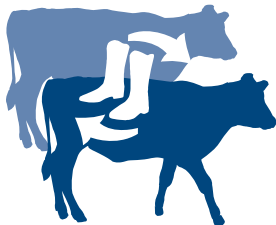
- **Oral**— Consuming disease causing agents in contaminated feed, water or licking/chewing on contaminated environmental objects.



- **Direct contact**— A susceptible animal becomes exposed when the disease agent directly touches open wounds, mucous membranes, or the skin through blood, saliva, nose to nose contact, rubbing, or biting.



- **Reproductive** — A subtype of direct contact that includes diseases spread through mating or to the fetus during pregnancy.

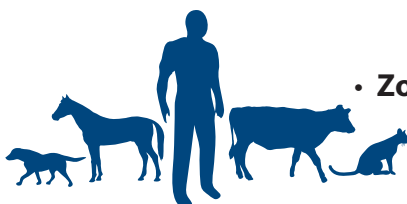


- **Fomite** — An inanimate object carrying a disease agent from one susceptible animal to another.

- **Traffic** — A subtype of fomite transmission in which a vehicle, trailer, or human spreads organic material to another location.



- **Vector-borne** — An insect acquires a disease agent from one animal and transmits it to another.



- **Zoonotic** — Diseases transmitted from animals to humans.

**Environmental contamination** must always be taken into consideration.

## TRANSMISSION ROUTES OF ZONOTIC DISEASES

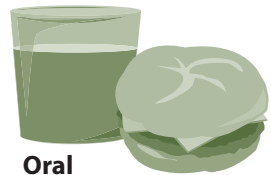
### Aerosol

Occurs when droplets are passed through the air from an infected animal and are breathed in by a person. Most exposure occurs when droplets are created from birthing tissues (placenta, birthing fluids), soil contaminated with feces, urine or bacteria and a person breathes in the dust particles.



### Vector

Occurs when an insect acquires a pathogen from one animal and transmits it to a person.

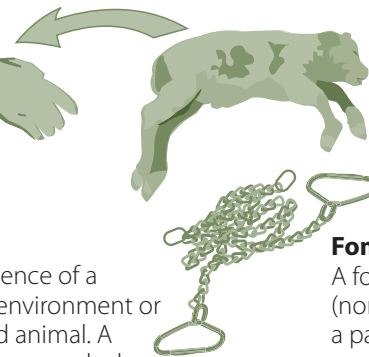


### Oral

Occurs by ingesting food or water contaminated with a pathogen. This can occur if animal products, such as milk or meat, are not pasteurized or cooked properly. Eating or drinking after handling animals without washing your hands could also lead to oral zoonotic disease transmission.

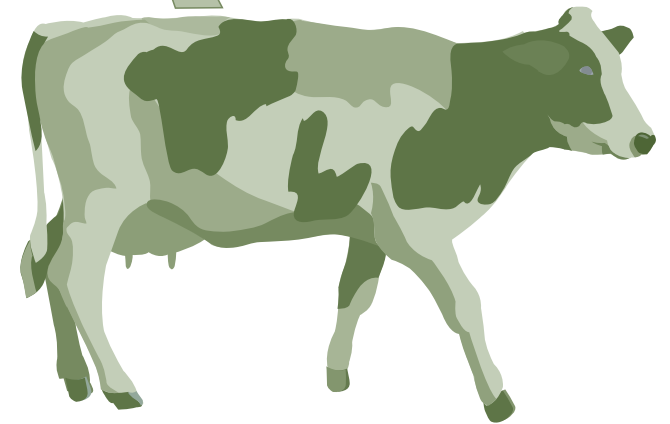
### Direct Contact

Requires the presence of a pathogen in the environment or within an infected animal. A person becomes exposed when the pathogen directly touches open wounds, mucous membranes or the skin.



### Fomite

A fomite is an inanimate (non-living) object that can carry a pathogen from an animal to a person. Examples of fomites include contaminated obstetrical (O.B.) chains, brushes, needles, clothing or bedding (straw, shavings).



graphic created by Clint May, CFSPH